



Application for Certification as an Eligible Energy Resource Under the Delaware Renewable Energy Portfolio Standard

1. Name of Facility

1972240

2. Facility Address

106 Elm Avenue

Newark, DE 19711

Is the facility located within the PJM control area?

☒ Yes

☐ No

If No, does the Facility have import capabilities¹?

☐ Yes

☐ No

3. Name of Owner

Solar Integrated Fund V, LLC

Mailing Address

6611 South Las Vegas Blvd, Las Vegas NV 89119

Phone (702) 680-6644

Fax

Email incentives.SREC@tesla.com

4. Name of Operator

Tesla Energy Operations, Inc.

Mailing Address

6611 Las Vegas Blvd S. Ste 200

Las Vegas, NV 89119

Phone (702) 680-6644

Fax

Email incentives.SREC@tesla.com

¹ Documentation will be required to substantiate import capabilities into PJM



5. Name of Contact Person

Carly Hamilton

Mailing Address

6611 Las Vegas Blvd S. Ste 200

Las Vegas, NV 89119

Phone 888.765.2489

Fax

Email incentives.SREC@tesla.com

6. Name of REC/SREC Owner

Tesla Energy Operations, Inc.

Mailing Address

6611 Las Vegas Blvd S. Ste 200

Las Vegas NV 89119

Phone (702) 680-6644

Fax

Email incentives.SREC@tesla.com

7. List all PJM-EIS GATS State Certification Numbers assigned to this facility:

PA-102466-SUN-I

8. Operational Characteristics:

Fuel Types Used (check all that apply):

☐ Gas combustion from the anaerobic digestion of organic material

☐ Geothermal

☐ Ocean, wave or tidal actions, currents, or thermal differences

☐ Qualified Biomassⁱ

☐ Qualified Fuel Cellsⁱⁱ

☐ Qualified Hydroelectricⁱⁱⁱ

☐ Qualified Methane Gas captured from a landfill gas recovery system^{iv}



☒ Solar

☐ Wind

If co-firing, provide the formula on file with PJM Environmental Information

Services, Inc. (PJM-EIS) _____

Rated Capacity (in megawatts - DC) 0.0045

If multiple fuel types are utilized, attach the formula for computing the portion of output per fuel type by megawatts per hour generated.

Facility **Final Approved Interconnection Date** 06/20/2017

If co-firing with fossil fuels, co-fire start date _____

If co-firing with fossil fuels, attach the allocation formula on file with PJM.

9. Is the Applicant's facility customer-sited generation^v?

☒ Yes ☐ No

Is the Applicant's facility a community owned generating facility^{vi}?

☐ Yes ☒ No

Can the output from the customer-sited generation be appropriately metered?

☒ Yes ☐ No



10. If the Applicant's installation is solar or wind sited in Delaware, is a minimum of 50% of the cost of the renewable energy equipment, inclusive of mounting components, manufactured in Delaware?

☐ Yes* ☒ No

Tesla Energy Operations, Inc.

Company Name of Installer

6611 Las Vegas Blvd S. Ste 200

Address
Las Vegas, NV 89119

Address


Signature of Company Representative

Carly Hamilton

Print Name of Company Representative

***If Yes, please attach the following documentation:**

- A copy of the supplier's invoice showing Delaware manufactured equipment with this facility identified
 - If the supplier's invoice shows only a coded Purchase Order (PO) number, a copy of the company's matching PO that includes the address where the materials were used/installed, must also be supplied
 - If using a master invoice, a record of the draws against the purchased quantity, on the master invoice, must show the address of each use and the quantity of material used

11. If the Applicant's installation is solar or wind sited in Delaware:

a. Was the facility physically constructed or installed with a workforce that consists of at least 75% Delaware residents?

☐ Yes* ☒ No

b. Does the installing company employ, in total, a minimum of 75% workers who are Delaware residents?

☐ Yes* ☒ No

Tesla Energy Operations, Inc.

Company Name of Installer

6611 Las Vegas Blvd S. Ste 200

Address
Las Vegas, NV 89119

Address


Signature of Company Representative

Carly Hamilton

Print Name of Company Representative

***If Yes, please attach supporting documentation (see pages 7-8 for details). Please note, in order to qualify for the Labor/Workforce Bonus, at least one of the options (a. or b.) must be met.**



I, Carly Hamilton (print name) hereby certify under penalty of perjury that

1. I have made reasonable inquiry, and the information contained in this Application is true and correct to the best of my knowledge, information and belief.
2. I am authorized to submit and execute this Application and to bind myself and/or my company to the representations contained herein.
3. I /my company agree(s) to comply with and be subject to the jurisdiction of the Public Service Commission of the State of Delaware for any matters arising out of my submission of this Application or the granting of the Application.
4. In the event that any of the information contained in this Application changes pending the consideration of this Application or after the Application is granted, I/my company will amend the Application to provide the Commission with such changed information.
5. I acknowledge that if any of the representations made in this Application or in any amendment thereto are found to be untrue when made, I/the company may be subject to sanctions, including but not limited to monetary fines and/or the revocation of any Certificate granted as a result of the representations made in this Application.

Signature: Carly Hamilton

Date: 6/5/2018



Required Documentation:

- If the facility is customer-sited generation, attach a copy of the utility's **Final Approved Interconnection Agreement**
- One copy of U.S. Department of Energy, Energy Information Administration Form EIA-860, if rated capacity is >1.0 MW

ⁱ "Qualified Biomass" means electricity generated from the combustion of biomass that has been cultivated in a sustainable manner as determined by Delaware Department of Natural Resources and Environmental Control (DNREC), and is not combusted to produce energy in a waste to energy facility or in an incinerator.

ⁱⁱ "Qualified Fuel Cells" means electricity generated by a fuel cell powered by Renewable Fuels, as that term is defined in Section 1.0 of the Rules and Procedures to Implement the Renewable Energy Portfolio Standard, Delaware Public Service Commission Regulation Docket No. 56.

ⁱⁱⁱ "Qualified Hydroelectric" means electricity generated by a hydroelectric facility that has a maximum design capacity of 30 megawatts or less from all generating units combined that meet appropriate environmental standards as determined by DNREC.

^{iv} "Qualified Methane Gas" means electricity generated by the combustion of methane gas captured from a landfill gas recovery system; provided, however, that:

1. Increased production of landfill gas from production facilities in operation prior to January 1, 2004 demonstrates a net reduction in total air emissions compared to flaring and leakage;
2. Increased utilization of landfill gas at electric generating facilities in operation prior to January 1, 2004 (i) is used to offset the consumption of coal, oil, or natural gas at those facilities, (ii) does not result in a reduction in the percentage of landfill gas in the facility's average annual fuel mix when calculated using fuel mix measurements for 12 out of any continuous 15 month period during which the electricity is generated, and (iii) causes no net increase in air emissions from the facility; and
3. Facilities installed on or after January 1, 2004 meet or exceed 2004 Federal and State air emission standards, or the Federal and State air emission standards in place on the day the facilities are first put into operation, whichever is higher.

^v "Customer-sited Generation" means a generating unit that is interconnected on the end use customer's side of the retail electricity meter in such a manner that it displaces all or part of the metered consumption of the end-use customer.

^{vi} "Community-owned Energy Generating Facility" means a renewable energy generating facility that has multiple owners or customers who share the output of the generator, which may be located either as a stand-alone facility or behind the meter of a participating owner or customer. The facility shall be interconnected to the distribution system and operated in parallel with an electric distribution company's transmission and distribution facilities.



Documentation Required for Delaware Labor/Workforce Bonus

11. If the Applicant's installation is solar or wind sited in Delaware:

- a. Was the facility physically constructed or installed with a workforce that consists of at least 75% Delaware residents?

If you answered yes to "a." above, complete the following as evidence.

The following individuals (list every employee) were employed by

Installation Company Name

as direct labor (physical construction and installation) for this facility: (Attach additional sheets if necessary)

Please complete the following information for all individuals listed above:

Name	Home Address City, State only (As per Tax Withholding)	Social Security Number (Last 2 digits only)

Total Delaware Resident Employees:_____ **Total Number of Employees:**_____

% of Delaware Residents (Delaware Residents Divided by Total Employees): _____



Documentation Required for Delaware Labor/Workforce Bonus

11. If the Applicant's installation is solar or wind sited in Delaware:

- b. Does the installing company employ, in total, a minimum of 75% of workers who are Delaware residents?

If you answered yes to "b." above, complete the following as evidence:

Installation Company Name

employed the following individuals (list EVERY employee on the payroll during the period from project start date until project completion date). Projects are considered complete upon final interconnection approval to operate. (Attach additional sheets if necessary)

Project Start Date: _____ Project Complete Date: _____

Employee Full Name	Home Address City, State Only (As per Tax Withholding)	Social Security Number (Last 2 digits Only)

Total Delaware Resident Employees: _____ Total Number of Employees: _____

% of Delaware Residents (Delaware Residents Divided by Total Employees): _____

Municipality Generator Interconnection Application

Single Meter Application – Part I

☒ New Application☐ Revised Application

A single customer interconnecting to a single meter at a single premise makes a new / revised application this date 12/29/2016 to the Municipality of City of Newark, to install and operate a generating facility interconnected with the Municipal's electric utility system.

Section 1. Ownership Type:

☐ Customer Owned and Operated ☐ Customer Leased and Operated ☒ Third Party Owned and Operated

As an electric service customer of the Municipality of City of Newark, I certify, as the interconnection applicant and by signature on this application that the contract arrangement between the generator owner and the generator vendor is for the sale of or lease of generator equipment only. I further certify under penalty of generator disconnect that the contract arrangement between the generator owner and generator vendor does not constitute a Power Purchase Agreement ("PPA") or otherwise involve the direct sale or invoice by the vendor to the customer for electricity generated in kilowatt-hours **Applicant must attach a fully executed contract between the vendor and the applicant. At no time shall the applicant change the contract to a purchase power agreement (PPA) with the vendor or a third party. The Municipal Electric Utility has the right to promulgate rules and regulations and while we make best efforts to support our customers desire for net-metering the Municipal Electric Utility retains the right to decline third party power suppliers within the Municipal Electric Utility service territories.**

Section 2. Applicant Information:

New Construction ☒Existing Construction ☐

Name: Elaine Van Wickle Email: evanwickle47@hotmail.com

Mailing Address: 106 Elm Avenue

City: Newark State: DE Zip Code: 19711

Facility Location (if different from above): 106 Elm Avenue Newark, DE 19711

Telephone (Daytime): Area Code _____ Number 3027532663 (Evening) Area Code _____ Number _____

Facility Age: _____ Power Account No.: 035-00002983-00

Section 3. Generator Technical Information

Customer Type: ☒ Residential ☐ Non-Residential ☐ Farm

The purpose of interconnection is to Net Energy Meter ("NEM") ☒ Yes ☐ No

If No, the generator will not be NEM eligible and will be subject to additional tariff requirements.

NEM Applicants Only:

Is Generator under: 25 kW for Residential, 500 kW for Non-Residential, 100 KW for Farm? ☒ Yes ☐ No

Is Generator on a farm and applicant requests a waiver of the 100 kW limit? ☐ Yes ☒ No

Type NEM Qualifying Energy Source: ☒ Solar ☐ Wind ☐ Hydro ☐ Electric Car _____ #

☐ Fuel Cell ☐ Anaerobic digestion of organic material



Generator Equipment and Operation Details (If multiple different products are used please detail each)

Generator Manufacturer:	Hanwha SolarOne (Qidong)
Generator Model Name:	Hanwha Q Cells:Q.PLUS-G4.1/SC 280
Generator Model Number:	
Generator Output (kW):	4.5
Inverter Manufacturer:	ABB
Inverter Model Name:	PVI-3.6-OUTD-S-US-Z-A-RGM
Inverter Model Number:	
Inverter Power Rating (AC Watts):	3.6 kWh
Number of Inverters:	1
Inverter Efficiency %:	96
Intended Inverter Location:	With in 3 feet of meter
System Rated Output (Generator Output x Inverter Efficiency)	4.5
Customer Consumption (2 year average) from Appendix A	
Generator Annual Production (kWh)	5074.4027

If Generator is Photovoltaic include as well:

Module Power Rating (DC @ STC): Should match Generator Output (kW)	4.68
Number of Modules:	15
Total Solar Output kW (Modules x Power Rating DC @ STC):	4.5
Array Orientation (degrees): Note the size of each array that has different degrees.	289
Array Tilt (degrees): Note the size of each array that has different degrees.	18
Solar Shading Analysis Required (Solar Pathfinder or equivalent accepted): Solar Shading analysis should include readings at all four (4) points of each continuous array and one in the center. Shading analysis will be used by the utility in consideration of NEM benefits.	



Any approved interconnections already in service at this location: ☐ Yes ☒ No

If yes please detail: _____

Will a generator disconnect device, accessible to the Municipal Utility, be installed? ☒ Yes ☐ No

If the Generator Owner elects not to install a manual disconnect device accessible to the Municipal Utility, the Generator Owner assumes all risks and consequences when a service meter must be "pulled" to disconnect the generator thereby also interrupting all utility electric service to the Customer site.

Section 4. Generator/Equipment Certification

Generating systems that use inverter technology must be compliant with IEEE 929 and *Underwriters Lab. UL 1741*. Generating systems must be compliant with the Municipality's Power Delivery's Technical Considerations Covering Parallel Operations of Customer Owned Generation. **By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirements and can supply documentation that confirms compliance. The applicant also agrees that if any details about the generator system as detailed in Section 3 change, it is the applicant's sole responsibility to notify the Municipal Utility of those changes by submitting a revised Interconnection Application prior to commencing or completing construction / retrofit. The applicant agrees to wait to receive approval from the Municipal Utility of any revised Interconnection Application before proceeding with construction. Failure to notify the Municipal Utility in advance of system changes prior to submitting the Final As-Built Details could cause approval delays or denial of interconnection if the revised system is not compliant with NEM and/or Municipal Utility requirements.**

Section 5. Net Energy Metering

Net Energy Metering is a service to customers which allows customers to generate electricity for their own needs (from an eligible on-site generating facility) and to deliver excess electric into the municipal electric system and then allows the customer to take electric from the municipal electric system when the customer cannot produce the electric required to sustain their own needs.

The customer sited generating system shall be designed to produce no more than 110% of the initial design load. The initial design load shall be the calculated average of the two previous twelve-month periods of actual electric usage at the time of installation of electric generating equipment. For new building construction, the initial design load will equate to the electric consumption of units of similar size and characteristics at the time of installation of energy generating equipment as determined appropriate by the Municipal Electric Utility.

Section 6. Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in this Part I Interconnection Application is true and correct.

Signed (Applicant): Elaine Van Wickle Date: 1/4/17

Print name: Elaine Van Wickle

Call your municipal electric service to find out who should receive this Part I Interconnection Application. Make sure to include all application sections (1 – 8) and Appendix A with new / revised submissions.



Section 7. Preliminary Generator/Equipment Installment Approval / Rejection

The Municipal Utility:



Approves



Does NOT Approve

Part I Interconnection Application for a (system type) SOLAR generator as detailed in this

application and located at (installation address) 106 Elm

Signed (Municipal Utility):

Sam Sneeinger

Date:

6/17/17

Print Name and Title:

Sam Sneeinger Deputy Electric Director

Reason of Not Approving:

Section 8. Internal Notifications

A copy of the approved Application Part 1 must be sent to the Municipal Building Department.

Yes



A copy of the approved Application Part I must be sent to the Delaware Municipal Electric Corporation ("DEMEC").

Yes



DEMEC
P.O. Box 310
Smyrna, DE 19977



Section 10. Applicant Certifications

I hereby certify that, to the best of my knowledge, all the information provided in the Final As-Built Details is true and correct. I agree to install a Warning Label provided by the Municipality on or near my service meter location. I also agree to submit a new or revised Interconnection Application and comply with all governing permitting requirements before adding to in any way or subtract from in any way the current approved electric generating system; including but not limited to expanding, replacing, or removing all or a portion of the current system, adding a new generator type, and/or replacing in anyway the generator system inverter. I further agree to notify the utility in writing through official certified mail at least 30 days before I sell or transfer ownership of the system to another owner to allow the municipal electric utility to update records and determine if the new owner agrees to the generation and interconnection responsibilities associated with the transfer of ownership. A new property owner, of property that up until the time of sale had an approved Interconnection Agreement in place for net-metering, has 30 days to submit a new Interconnection Agreement for net-metering in his/her name. If the new owner fails to submit an Interconnection Agreement within 30 days of property transfer, certain net-metering transfer rights may be discontinued.

Failure for non-compliance to these certifications will be considered a violation of the net-metering agreement and may result in the disconnection of the electric generator at the discretion of the municipal electric utility. The sale or transfer of the electric generator shall not compromise law.

I further certify and understand that municipal utility review and approval of this application does not constitute an endorsement of actual equipment performance nor does it endorse its benefits or economics.

Signature of Applicant:

Date:

1/4/17

Print Name: Elaine Van Wickle

Call your municipal electric service to find out who should receive this Part II Interconnection Application. Make sure to include all application sections (9 - 12) with final submissions.

Section 11. Final Approval or Non-Approval for Interconnection and System Operation

The Municipal Utility:



Approves



Does NOT Approve

The interconnection of a

SOLAR

generator as detailed in the Final As-Built Details and located

at (installation address)

106 Elm Ave

The Municipal Utility has verified the applicant's average electric consumption in Appendix A.



Yes



No

The Municipal Utility has verified at the time of installation that the installed electric generator is designed to produce no more than 110% of the applicant's/customer's average annual electric consumption as calculated in Appendix A.



Yes



No

Signed (Municipal Utility):

Sam Smeeringer

Date:

6/20/17

Print Name & Title:

Sam Smeeringer Deputy Electric Director

Reason of Not Approving:



Approval to connect to the municipal system indicates only that the minimum requirements for a safe proper interconnection have been satisfied. Such approval does not imply that the Generator Owner's facility meets all federal, state and local standards or regulations.

Section 12. Municipal Internal Notifications

- Send Applicant Warning Label for installing on/ near service meter: ☒ Yes
- Notify Billing Dept. of Interconnected Generation: ☒ Yes
- Notify District Engineering of Interconnected Generation: ☒ Yes
- Notify System Protection of Interconnected Generation: ☒ Yes
- Notify Municipal Building Department: ☒ Yes
- A copy of the approved Part II Final As-Built Details must be sent to the Delaware Municipal Electric Corporation ("DEMEC"). ☐ Yes

DEMEC
P.O. Box 310
Smyrna, DE 19977

